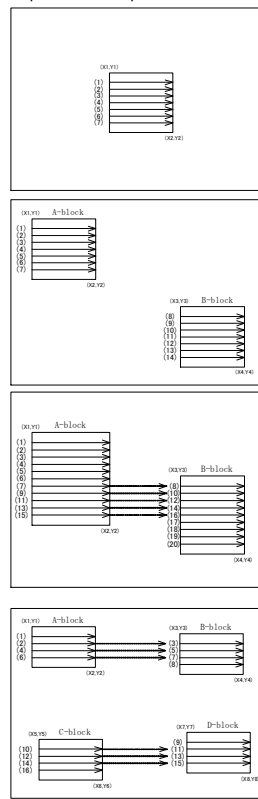


Practical operation example



In the case of only one readout area
A readout area can be designated by the start address (X1, Y1) and the end address (X2, Y2). The camera can read out the user-defined area through this function.
The each address is designated by the start address and lengths (pixel numbers) of "X" and "Y" directions.

In the case of more than two readout areas
The area designated by the start address (X1, Y1) and the end address (X2, Y2) is read out first (A-block in the left figure).
After reading out of A-block, the next area designated by (X3, Y3) and (X4, Y4) is read out (B-block in the left figure)

In the case of more than two readout areas and including the same readout lines with each other
The designated areas are read out in order of address from the start (X1, Y1) to the end (X4, Y4).

In the case of four readout areas
The designated areas are read out in order of address from start (X1, Y1) to the end (X8, Y8).

9. Specification

[Electronic Specification]

- (1) Image sensor CMOS image sensor
 - Total pixel 1280(H) x 1024(V)
 - Active pixel 1240(H) x 1024(V)
 - Pixel size 6.7(H) x 6.7(V) micro m
 - Image area 8.308mm(H) x 6.854mm(V)
 - Driving frequency 39.3216 MHz
- (2) Scanning line 1024 lines
- (3) Scanning system Progressive
- (4) Frame rate 16 fps (Exposure time: 62.5 micro sec)
- (5) Sync system Internal
- (6) Aspect ratio 5 : 4
- (7) Subject illumination 2600lx, F5.6 (3100K) (Exposure time: Approx 16 msec)
- (8) Video output time Approx. 62.2 msec
- (9) Interface Conforms to IEEE Std. 1394a-2000
 - Transfer speed 400Mbps
- (10) Video mode Format7/Special format (in WOI) Mono 8bit
- (11) Protocol Conforms to 1394-based Digital Camera Specification ver.1.3
- (12) Input signal TRIG (Shutter Trigger) 3.3V CMOS level
 - Grabbing timing Falling edge detection
 - Pulse width Minimum : 5 micro sec
 - Max : no limit
- (13) Electronic shutter Shutter speed (preset inside the camera) selection via communication command 1 through 4000 (approx. 62.5 micro sec through 1 sec)
- (14) Shutter mode Global shutter
- (15) Random Trigger Shutter
 - Mode 0 Shutter speed preset mode (preset inside camera)
 - Mode 1 Shutter speed can be controlled via shutter trigger pulse width. The camera starts light-exposure at the falling edge timing and ends it at the rising edge timing.
- (16) Power supply DC+8V through DC+30V (IEEE1394 cable power supply)
- (17) Power condition Approx. 1.5W (at +30V)
Approx. 1.4W (at +12V)
Approx. 1.4W (at +8V)

[Mechanical Specification]

- (1) External dimension 44(W) x 29(H) x 52(D) mm (Without projection)
- (2) Weight Approx. 120 g
- (3) Lens mount C-mount
- (4) Flange back 17.526 mm
- (5) Chassis grounding Between Connector shell and FG Continuity provided
/insulation Between FG and SG Continuity not provided

[Use environmental conditions]

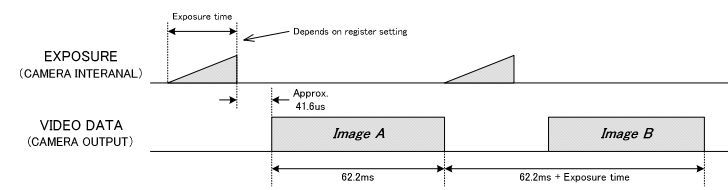
- (1) Ambient condition
 - Temperature:
 - Performance guaranteed From 0 through 40 degrees Celsius
 - Operation guaranteed From -5 through 45 degrees Celsius
 - Preservation From -20 through 60 degrees Celsius
 - Humidity:
 - Performance guaranteed From 20 through 80 % (No condensing)
 - Operation guaranteed From 20 through 80 % (No condensing)
 - Preservation From 20 through 95 % (No condensing)

[Interface specification]

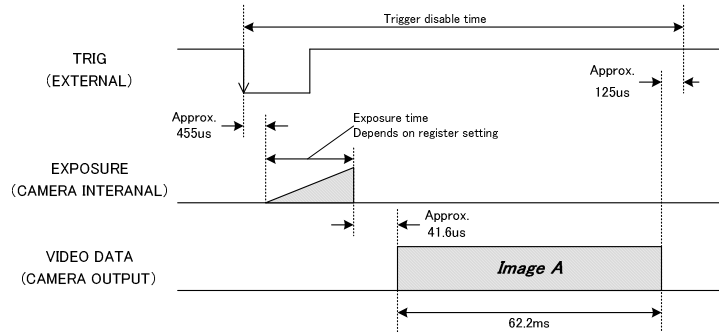
Please contact our sales person about interface specification.

10. Timing Chart

(1) Normal shutter mode (Format 7 mode 0)

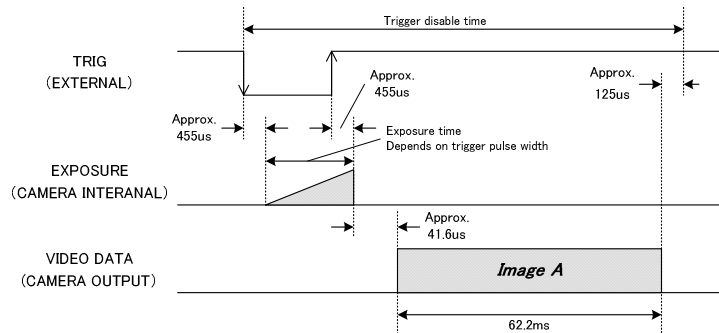


(2) Random Trigger Shutter mode (Fix mode, Format 7 mode 0)



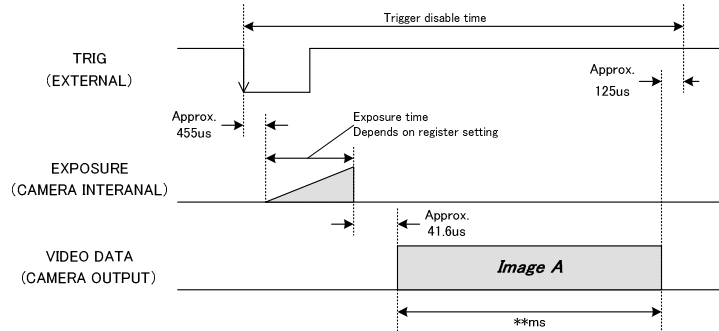
Shutter speed depends on the internal register setting value.
After trigger IN, next trigger signal is not acceptable until the readout is completed.

(3) Random Trigger Shutter (Pulse width control, Format 7 mode 0)

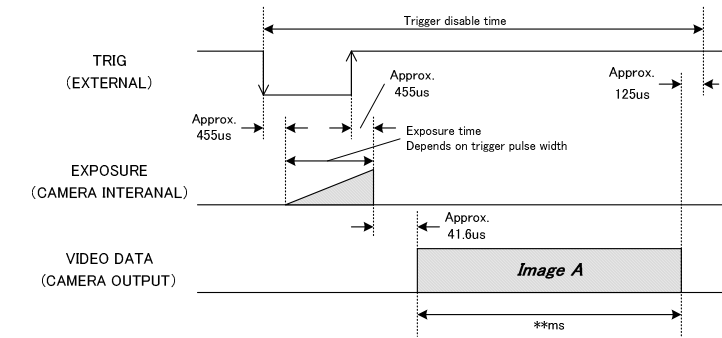


Shutter speed depends on the trigger pulse width.
After trigger IN, next trigger signal is acceptable until the readout is completed.

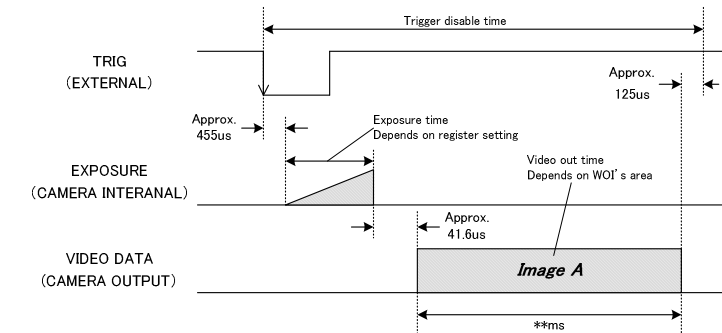
(4) Scalable (Fix mode, Format 7 mode 1)



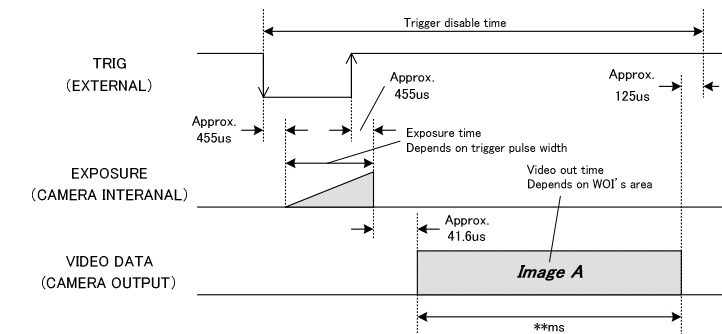
(5) Scalable (Pulse width control, Format 7 mode 1)



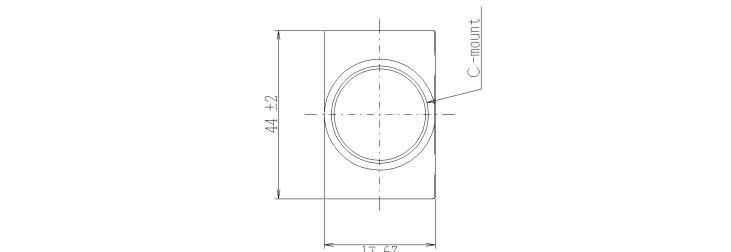
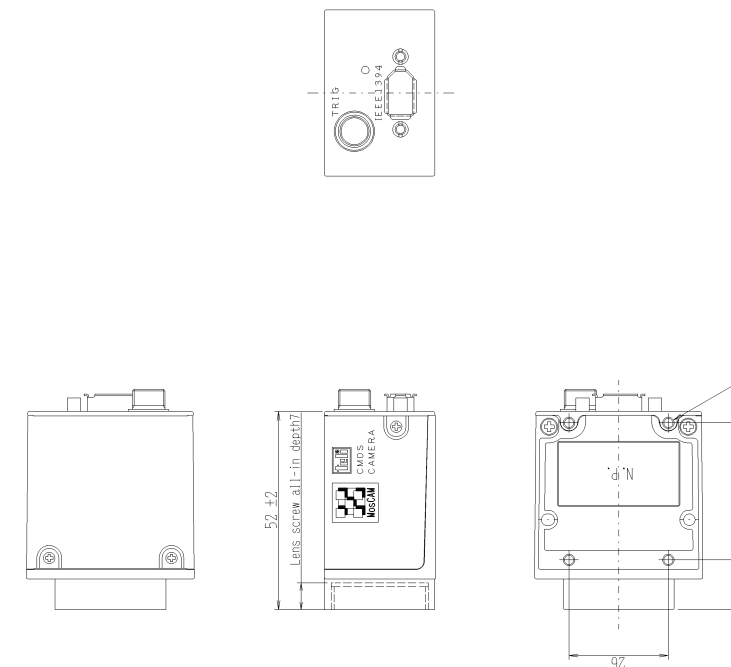
(6) WOI mode (Fix mode, Format X)



(7) WOI mode (Pulse width control, Format X)



11. External View



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The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about the take-back and recycling of this product, please contact your supplier where you purchased the product.

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